WHAT IS CLAIMED IS:

1.   A method for skimming video data wherein the video data comprises a plurality of scenes, comprising the steps of:

obtaining a plurality of shots for each scene using a shot segmentation and forming a structure information index corresponding to each shot;

selecting at least one shot from each scene based on the structure information index;

selecting at least one section from the selected shot; and

reproducing selected sections from each scene to skim the video data.

2.   The method of claim 1, wherein the structural information index includes at least one of scene information, shot information and temporal information.

3.   The method of claim 2, wherein the scene information includes a logical story unit, the shot information includes a physical editing unit, and the temporal information includes information concerning start and end of each shot.

4.   The method of claim 1, wherein when shots are being selected from each scene, selection of multiple shots having similar properties is minimized.

5.   The method of claim 4, wherein, in selecting shots to be reproduced from the multiple shots having the similar properties, shots to be used for skimming are selected by giving a higher weight value to shots located at a latter part of each scene.

6.   The method of claim 1, when selecting at least one section from the selected shot, the selected section is from at least one of front section, rear section, center section of the selected shot.

7.   The method of claim 1, wherein each reproduction length of selected sections from selected shots is the same.

8.   The method of claim 7, wherein if the reproduction length of the selected section is larger than a shot length of the corresponding selected shot, then the reproduction length of the selected section is decreased to be less than or equal to the shot length.

9.   The method of claim 1, wherein each section comprises a plurality of frames and each reproduction length of selected sections from selected shots is chosen in response to a dissimilarity factor of neighboring frames.

10.   The method of claim 9, wherein the dissimilarity factor is determined in response to at least one of image, motion and audio similarities in individual shots, and the reproduction length of selected section is adjusted in response to the dissimilarity factor.

11.   The method of claim 10, wherein the image, motion and audio similarities in the selected shot representative of the selected scene includes similarities in frames, motion vectors and audio data with different time positions.

12.   The method of claim 9, wherein if the reproduction length of the selected section is larger than a shot length of the corresponding selected shot, then the reproduction length of the selected section is decreased to be less than or equal to the shot length.

13.   The method of claim 1, wherein the reproduction of selected sections is varied in response to an external input.

14.   The method of claim 13, wherein the selected sections is reproduced at a high speed by increasing a number of frames to be decoded per unit time.

15.   The method of claim 14, wherein each selected section comprises a plurality of frames and the selected sections are reproduced by selecting at least one frame from the corresponding section.

16.   The method of claim 15, when the video data uses a coding scheme utilizing interframe compression, then I frames are selected for obtaining frame data for decoding only corresponding frames.

17.   A method for skimming video data using a structure information index, wherein the video data comprises a plurality of scenes and each scene comprises a plurality of shots, and the structure information index corresponds to structure information of each shot, comprising the steps of:

selecting at least one shot from each scene based on the structure information index, wherein when shots are being selected from each scene, selection of multiple shots having similar properties is minimized;

selecting at least one section from the selected shot; and

reproducing selected sections from each scene to skim the video data.

18.   A video skimming system for skimming video data wherein the video data is partitioned into a plurality of scenes, the video skimming system comprising:

means for obtaining a plurality of shots for each scene using a shot segmentation and forming a structure information index corresponding to each shot;

means for selecting at least one shot from each scene based on the structure information index;

means for selecting at least one section from the selected shot; and

means for reproducing selected sections from each scene to skim the video data.

19.   A video skimming apparatus for searching and browsing digital video data, comprising:

a user interface unit for inputting an external control information;

a control unit for skimming the video data based on a structural information index for the video content according to the external control information from the user interface unit and selecting at least one shot from each scene based on the structure information index and selecting at least one section from the selected shot;

a video information file for providing the structural information index for the video data to the control unit; and

a display unit for reproducing the video skimmed by the control unit.

20. The video skimming apparatus of claim 19 , wherein, the user interface unit comprises a unit for designating a summary level as a degree of video skimming or a unit for designating the speed of a reproduction section in video skimming in order to select the summary level or reproduction speed of video in video skimming.

21. The video skimming apparatus of claim 20, wherein the control unit reads the structure information index related to shot segmentation information and shot clustering information from an index file according to a skimming condition by using the external control information, calculates segments to be reproduced conforming to the video skimming condition, reproduces the corresponding segments from the video data, and outputs to the display unit.

22. A method for skimming video data wherein the video data comprises a plurality of shots, wherein a structure information index is prepared based on content-based information using a shot segmentation, comprising the steps of:

selecting at least one shot from the video data based on the structure information index;

selecting at least one section from the selected shot; and

reproducing selected sections from each scene to skim the video data.

23. The method of claim 22 wherein the structural information index includes at least one of shot information and temporal information.

24. The method of claim 23, wherein the shot information includes a physical editing unit, and the temporal information includes information concerning start and end of each shot.

25. The method of claim 22, wherein when shots are being selected, selection of multiple shots having similar properties is minimized.

26.   The method of claim 22, when selecting at least one section from the selected shot, the selected section is from at least one of front section, rear section, center section of the selected shot.

27.   A video skimming system for skimming video data wherein the video data is partitioned into a plurality of shots, wherein a structure information index is prepared based on content-based information using a shot segmentation, the video skimming system comprising:

means for selecting at least one shot from the video data based on the structure information index;

means for selecting at least one section from the selected shot; and

means for reproducing selected sections from each scene to skim the video data.